What is claimed is:

1. A method of producing a glass particle-deposited body, the method using a reaction container provided with:

(a) at least one burner for synthesizing glass particles;

(b) at least one gas-discharging port; and

(c) a gas-discharging pipe connected to the or each gas-discharging port;

the method comprising the steps of:

(d) synthesizing glass particles by using the at least one burner in the container; and

(e) moving at least one member selected from the group consisting of (e1) the at least one burner and (e2) a starting material so that the glass particles can adhere onto the surface of the starting material to be deposited there;

the method being specified by the condition that:

(f) the reaction container's internal pressure P_H is defined as the pressure at the uppermost position in a space for the movement of at least one member selected from the group consisting of (f1) the at least one burner and (f2) the starting material's surface onto which the glass particles are to adhere;

(g) the reaction container's internal pressure P_L is defined as the pressure at the lowermost position in the space; and

(h) the pressure P_H is adjusted to be higher than the pressure P_L by 2 to 30 Pa.

2. A method of producing a glass particle-deposited body as defined by claim 1, wherein:

(a) the at least one gas-discharging port is at least two gas-discharging ports; and

(b) the pressure in the gas-discharging pipe is adjusted such that the pressure increases with increasing height of the position of the gas-discharging port to which the gas-discharging pipe is connected.

3. A method of producing a glass particle-deposited body as defined by claim 1, wherein the reaction container further provided with a heat source in it to achieve the pressure P_H higher than the pressure P_L by using the heat supplied from the heat source.

4. A method of producing a glass particle-deposited body, the method using a reaction container provided with:

(a) at least one burner for synthesizing glass particles;

(b) at least two gas-discharging ports; and

(c) a gas-discharging pipe connected to each of the at least two gas-discharging ports;

the method comprising the steps of:

(d) synthesizing glass particles by using the at least one burner in the container; and

(e) causing the glass particles to adhere onto the surface of a starting material to be deposited there;

the method being specified by the condition that the pressure in the gas-discharging pipe is adjusted such that the pressure increases with increasing height of the position of the gas-discharging port to which the gas-discharging

pipe is connected.

5. A method of producing a glass particle-deposited body as defined by claim 1, wherein the at least one gas-discharging port is placed at the same height as that of the at least one burner for synthesizing glass particles.

6. A method of producing a glass particle-deposited body as defined by claim 4, wherein at least one of the at least two gas-discharging ports are placed at the same height as that of the at least one burner for synthesizing glass particles.

7. A method of producing a glass particle-deposited body, the method using a reaction container provided with:

(a) at least one burner for synthesizing glass particles;

(b) at least one gas-discharging port; and

(c) a gas-discharging pipe connected to the or each gas-discharging port;

the method comprising the steps of:

(d) synthesizing glass particles by using the at least one burner in the container; and

(e) vertically raising a starting material so that the glass particles can adhere onto the surface of the starting material to be deposited there;

the method being specified by the condition that:

(f) the highest and lowest positions are determined among the positions of the group consisting of:

(f1) the position of the top of the at least one burner;

(f2) the position at which the center axis of the at least one burner extended in the direction of the flame issuing from the at least one burner

intersects the wall of the reaction container; and

(f3) the position at which the at least one gas-discharging port is placed; and

(g) the reaction container's internal pressure at the highest position is adjusted to be higher than the reaction container's internal pressure at the lowest position by 2 to 30 Pa.

8. A method of producing a glass particle-deposited body as defined by claim 1, wherein the reaction container further provided with at least one clean gas-feeding port;

the method further comprising the step of feeding a clean gas into the reaction container from the at least one clean gas-feeding port;

the method being further specified by the condition that the pressure of the clean gas fed from the at least one clean gas-feeding port is the same as or higher than the pressure in the reaction container at the same height as that of the at least one clean gas-feeding port.

9. A method of producing a glass particle-deposited body as defined by claim 4, wherein the reaction container further provided with at least one clean gas-feeding port;

the method further comprising the step of feeding a clean gas into the reaction container from the at least one clean gas-feeding port;

the method being further specified by the condition that the pressure of the clean gas fed from the at least one clean gas-feeding port is the same as or higher than the pressure in the reaction container at the same height as that of

the at least one clean gas-feeding port.

10. A method of producing a glass particle-deposited body as defined by claim 6, wherein the reaction container further comprises at least one clean gas-feeding port;

the method further comprising the step of feeding a clean gas into the reaction container from the at least one clean gas-feeding port;

the method being further specified by the condition that the pressure of the clean gas fed from the at least one clean gas-feeding port is the same as or higher than the pressure in the reaction container at the same height as that of the at least one clean gas-feeding port.

11. A method of producing a glass particle-deposited body as defined by claim 1, wherein the at least one gas-discharging port is at least two gas-discharging ports;

the method being further specified by the condition that:

(a) the reaction container's internal pressure is measured at a position some distance apart in a direction horizontally from the center of each of the gas-discharging ports;

(b) the internal pressure of each of the gas-discharging pipes connected to the gas-discharging ports is measured at a position some distance apart horizontally from the center of the gas-discharging port to which it is connected;

(c) the difference between the two pressures expressed in (a) and (b) above with respect to each of the gas-discharging ports is obtained (the difference

is referred to as the difference between the inside and outside pressures of the gas-discharging port); and

(d) the difference between the inside and outside pressures of each of the gas-discharging ports is adjusted to fall within the range of 70% to 130% of the average value of the differences between the inside and outside pressures of all of the gas-discharging ports.

12. A method of producing a glass particle-deposited body as defined by claim 6, wherein the at least one gas-discharging port is at least two gas-discharging ports;

the method being further specified by the condition that:

(a) the reaction container's internal pressure is measured at a position some distance apart in a direction horizontally from the center of each of the gas-discharging ports;

(b) the internal pressure of each of the gas-discharging pipes connected to the gas-discharging ports is measured at a position some distance apart horizontally from the center of the gas-discharging port to which it is connected;

(c) the difference between the two pressures expressed in (a) and (b) above with respect to each of the gas-discharging ports is obtained (the difference is referred to as the difference between the inside and outside pressures of the gas-discharging port); and

(d) the difference between the inside and outside pressures of each of the gas-discharging ports is adjusted to fall within the range of 70% to 130% of

the average value of the differences between the inside and outside pressures of all of the gas-discharging ports.

13. A method of producing a glass particle-deposited body as defined by claim 4, the method being further specified by the condition that:

(a) the reaction container's internal pressure is measured at a position some distance apart in a direction horizontally from the center of each of the gas-discharging ports;

(b) the internal pressure of each of the gas-discharging pipes connected to the gas-discharging ports is measured at a position some distance apart horizontally from the center of the gas-discharging port to which it is connected;

(c) the difference between the two pressures expressed in (a) and (b) above with respect to each of the gas-discharging ports is obtained (the difference is referred to as the difference between the inside and outside pressures of the gas-discharging port); and

(d) the difference between the inside and outside pressures of each of the gas-discharging ports is adjusted to fall within the range of 70% to 130% of the average value of the differences between the inside and outside pressures of all of the gas-discharging ports.